

pensation would amply repay. Many lists of one hundred "best books" have been printed, and it would help anyone to take such a list and make selections from it. I do not, of course, say that to develop a taste for reading, or to cultivate a taste already possessed will drive out dull care and discontent; neither do I presume that the reason thereof is attributable to a want of reading,—that would be manifestly absurd; but this I do know, that "He that loveth a book will never want a faithful friend, a wholesome counsellor, a cheerful companion, an effectual comforter. By study, by reading, by thinking, one may innocently divert and pleasantly entertain oneself, as in all weathers so in all fortunes."

MEANS USED FOR THE REDUCTION OF TEMPERATURE IN FEBRILE CASES

By SARA M. DICK

HYDROPATHY as a remedial agent in the treatment of pyrexia is a now universally acknowledged powerful factor and valuable therapeutic remedy. Although advocated by Currie, of Liverpool, in 1788 and in a measure practised, it did not gain much favor until strongly advocated by Brand, of Berlin, between 1860 and 1870, since when the virtues of water as a curative agent have been more fully developed.

The most commonly employed methods, the effect of which in general is produced by evaporation, are, first, sponging; second, packing; third, tubbing; fourth, sprinkling, or affusion; fifth, cold enemata.

THE SPONGE-BATH.

The sponge-bath is an old and generally applied remedy. Its effect is stimulating, soothing to the nervous system, and tends to produce sleep. To discuss so trite a subject as the manner of giving a sponge-bath would seem to the graduate nurse of recent years an unnecessary proceeding, as may, indeed, the dwelling on some of the other modes spoken of; but, again, some helpful hint may reach the nurse of earlier times.

PACKING.

The wet pack is one of the most practical ways of using water in the treatment of febrile cases. It is less heroic than tubbing, and consequently preferable in cases where the shock of the latter treatment is feared. A long rubber sheet or oil-cloth is first put on the bed, then a

blanket; over this a sheet which has previously been wrung out of either cold or hot water, as ordered, is folded twice lengthwise and placed under the patient. An additional wet sheet covers every surface of the body by being well tucked in at neck, sides, and lower limbs. The feet must be left uncovered, and if at all inclined to be cold, heat should be applied to them. A cold compress or ice-bag must be applied to the head. The enveloping sheets should be wet anew with water of the desired temperature. In all cases the movements of the patient must be reduced to a minimum. The pack may be prolonged from half an hour to one hour, or even in some cases longer.

TUBBING.

Tubbing may be done in a portable bedside tub or in bed. When the bedside tub is used, the patient, wrapped in a sheet, is carefully lifted and gradually lowered into a tub half filled with water of about the temperature of the body. The water is gradually cooled by the addition of ice until the temperature of 70° or 68° F. is reached and maintained. The limbs and trunk are rubbed and a compress wrung out of ice-water, or an ice-bag is applied to the head, which is kept raised out of the water and comfortably supported by a rubber ring or cushion attached to the head of the tub. Systematic friction does much to counteract shivering and the tendency to cyanosis. The patient must be carefully watched, and when signs of increasing weakness follow, the duration of the bath, which usually is of twenty minutes' time, must be reduced. Within five or ten minutes' time the pulse of a patient in the bath becomes smaller and the tension is increased. While in the bath the bed is prepared for the patient's reception with a blanket and sheet. Where the heart's action is feeble the patient is dried at once and wrapped in the blanket. In other instances the patient is wrapped in the sheet for from ten to fifteen minutes and covered with the blanket. A hot drink, such as lemonade or whiskey and water, is given, and the temperature taken per rectum and again every half an hour when the heat of the interior and exterior of the body has become equalized.

Tubbing in bed may be skilfully done by means of a tub devised by Dr. A. H. Burr, of Chicago. It consists of a large rubber sheet with rings attached near its margins by elastic tapes, and of a light wooden frame with fastenings along the upper rail to which the rings of the sheet are attached. This crib can be fastened into a compact bundle by two movements. In using, the sheet is slipped under the patient and made to cover the bed evenly. The frame is unfolded and placed over the patient, resting on the mattress. The edges of the sheet are then drawn up over the top rail and fastened by its rings. Tepid water is

then poured in until the patient is sufficiently immersed. The desired temperature of the bath is obtained by the addition of ice, as in other methods. This tub is quickly and easily emptied by siphon-shaped pieces of hose which accompany the tub, or by bending a corner of the sheet and draining the water off into pails or a tub.

Where the Burr tub is not obtainable a method for giving tubbing devised by a hospital nurse answers admirably. A large rubber blanket covered by a dry sheet is spread under the patient. The four corners are suspended from the corners of the bed. A depression is formed by placing a pillow at the head and at the foot. This tub can be quickly emptied, and has two great recommendations in its comparative inexpensiveness and the ease with which it may be carried from one case to another.

A modification of Brand's method by the use of warm or tepid water only will often accomplish the same and even, in some instances, achieve more effectual results. It keeps the patient comfortable, reduces the temperature to a safe limit, and favors the absorption of water through the skin much more than the cold bath by opening the pores. It also produces a calming and strengthening effect on the nervous system without shock. In all cases it is well to remember that the too sudden application of cold to the surface of the body is liable to cause marked internal hyperæmia and congestion.

SPRINKLING, OR AFFUSION.

Sprinkling, or affusion, is another satisfactory way of treating pyrexia. A long rubber sheet is put under the patient the sides of which are rolled to form a trough, and the unrolled end at the foot is arranged so that the water will drain into a pail or tub. The patient, over whom a sheet has been thrown, is then sprinkled with several gallons of water. An ordinary watering-can, or sprinkler attached to the tube of a fountain syringe, may be used. The temperature of the affusion is gradually reduced, as in tubbing, by using the watering-can or fountain syringe twice full of warm water, twice with tepid, twice with cool, and twice with ice-cold. The sprinkling is done from the feet up and gentle friction maintained.

COLD ENEMATA.

Enematas of cold water are sometimes used for their antipyretic effect, in the giving of which the lowering of the patient's head by removal of pillows and elevation of hips by placing a pillow doubled under them and raising the foot of the bed will materially assist. The colon absorbs more quickly than the rectum, therefore the need of giving the enema as high as possible.